



## Tile Adhesives

### K511a.lv

Technical Data  
Sheet

02/2022



## K3

### Highly flexible tile adhesive for floors

#### Material

Water- and frost-resistant, fast-setting, highly flexible, high-quality cement-based tile adhesive for thin and medium-bed applications.

#### Composition

A mixture of dolomite and natural sand with Portland and aluminate cement, enriched with polyvinyl acetate polymer and additives to improve the properties of the mixture.

The soluble chromium VI (Cr VI) content complies with the requirements set forth in Article 47 of EC Regulation No. 552/2009.

Complies with  
Type

LVS EN 12004  
C2FES1

#### Storage

6 months. Store in a dry, cool place on wooden pallets in the unopened original packaging. Seal opened bags tightly and use them first.

#### Quality assurance

In accordance with the requirements of LVS EN 12004, a product type test has been conducted at a notified laboratory, and continuous control of the manufacturing process is ensured.

The product is marked with the CE mark.

#### Features and benefits

- Particularly suitable for large-format floor tiles measuring 60x60 cm and larger
- Self-leveling
- Highly flexible
- Fast-curing
- Temperature resistance from -20 °C to +80 °C
- High initial adhesion
- Shrinkage- and stress-free
- Load-bearing
- Water-resistant
- Freeze-resistant
- With extended application time
- Hydraulically setting
- For manual application
- For interior and exterior use

## Application

Thin-bed and medium-bed tile adhesive for large-format tiles and slabs, suitable for floors, including heated floors.

Suitable for:

- heated floors,
- terraces and balconies,
- surfaces subject to rapid temperature fluctuations. Intended for:
  - bonding large-format floor tiles ( $\geq 60 \times 60$  cm),
  - bonding water-absorbent and non-absorbent tiles,
  - For bonding polished and opaque natural stone slabs. For interior and exterior use.

## Application

### Substrate

The substrate must be smooth, solid, frost-free, and free of dust, paint, and oil residues.

### Maximum permissible substrate moisture content

Substrate	Max. moisture content
Cement floor covering	4%
Heated cement floor	2%
Gypsum anhydrite floor	0.5

### Priming

Highly absorbent and absorbent substrates must be primed with Knauf Spezialhaftgrund (diluted 1:2 with water) or Knauf Haftemulsion (diluted 1:4 with water), or Knauf Tiefengrund.

Non-absorbent surfaces—such as ground (polished) concrete, terrazzo, etc.—should be primed with Knauf Spezialhaftgrund (undiluted) or Knauf Haftemulsion (diluted 1:2 with water).

For surfaces expected to be exposed to moisture, apply a waterproofing layer of Knauf Flächendicht or Knauf Flex-Dicht.

Tile only after the primer has completely dried!

### Application

Pour 25 kg of K3 into 5.7–6.2 liters of clean, cold water; mix by hand or with a slow-speed mixer until a homogeneous, lump-free mixture forms; let it stand for 5 minutes, then mix again. Adjust the consistency by adding powder or water to the mixture. When laying tiles using the medium-bed method, the tile adhesive should be mixed to a thicker consistency.

### Application

First, apply the mixed adhesive to the entire prepared surface using a trowel or putty knife to the appropriate layer thickness. Then, holding the trowel at a 90° angle, comb the surface with a suitable notched trowel (notch sizes are specified in the Consumption Table).

When laying large-format tiles, it is recommended to use a spacer-wedge leveling system. When tiling, place the spacer in the joint beneath the tiles, approximately 7 cm from the edge of the tile. Then insert a wedge into the notch of the spacer to ensure that the surfaces of both tiles are in the same plane. If a film forms (check with your finger!), the adhesive must be reapplied. The setting and curing time depends on the substrate and the tiles' absorbency, as well as the air temperature.

Use only clean tools and containers!

### Grouting

Grouting may only be performed after the adhesive has set—approximately 1 day later.

### Tiling heated floors

The underfloor heating system must be put into operation before tiling. Before tiling begins, the underfloor heating system must be set to the maximum temperature setting for at least 24 hours. Before work begins, it must be turned off and allowed to cool down. Full heating may be turned on no sooner than 28 days after tiling.

### Temperature/Climate

The air and substrate temperature during installation and drying must be between +5 °C and +25 °C.

Protect freshly laid tile flooring from drafts, direct sunlight, and rain! Technical data for application are defined under conditions where the air and substrate temperature during curing is +23 °C and relative humidity is 50%.

### Drying

Drying time depends on the substrate's absorbency, air temperature, and humidity in the room.

### Cleaning

Wash tools with water immediately after use.

#### Caution!

The larger the tiles and the lower their water absorption, the slower the adhesive dries.

Clean up any areas contaminated with adhesive immediately!

Also follow the tile manufacturer's instructions and recommendations!

Do not add other materials to Knauf K3, as this can significantly alter the product's properties.

### Other instructions

For exterior work and heavily loaded surfaces, use the combined method (apply adhesive to both the substrate and the tiles); this ensures up to 100% adhesive contact with the substrate. This method should also be used when installing tiles with very low (<0.5%) water absorption. If the material comes into contact with the eyes, rinse them with plenty of water and seek medical attention.

This technical data sheet specifies the scope of material use and recommended work procedures, but it cannot replace the contractor's expertise. In addition to these recommendations, work must be performed in accordance with construction requirements. The manufacturer guarantees the quality of the product, but this does not affect the manner and conditions of its use.

In case of doubt, a trial application should be performed.

This technical data sheet supersedes all previous editions.

### Work Safety and Waste Collection

Waste identification class: 170904

(see Material Safety Data Sheet).

**Technical data**

Designation	Unit	Value / Size
Type	in accordance with LVS EN 12004	C2FES1
Layer thickness	mm	3–20
Production time	h	1
Tile installation time*	min	30
Tile adjustment time*	min	15
Grout filling time	h	24
The surface can be walked on after	h	6
The surface can be fully loaded after	day	7
Adhesion – to concrete	N/mm <sup>2</sup>	≥ 1.0
Early bond	N/mm <sup>2</sup>	≥ 0.5
Fire reaction class	in accordance with LVS EN 13501-1	A1
Processing temperature	°C	+5 to +25
Temperature resistance	°C	-20 to +80

\* Time depends on tile type and ambient temperature

**Consumption**

Tile size cm	Notch size of trowel mm	Coverage* kg/m <sup>2</sup>
up to 20	6	1.9
up to 30	8	2.5
up to 40	10	3.3
to 50	12	4.5
up to 60	15	5.5

\* Adhesive consumption is not determined by the size of the tiles, but rather by the thickness of the adhesive layer, which depends on the size of the notches on the trowel

**Delivery Schedule**

Name	Packaging	Item No.	EAN code
K3	25 kg	00289132	4750614006245

**Knauf Info Center:**

▶ Tel. +371 67 032 999

▶ info-lv@knauf.com

▶ www.knauf.lv

Manufacturer: SIA Knauf, Daugavas iela 4, Saurieši, Stopiņu pag., Ropažu nov., LV-2118, Latvia.

SIA Knauf reserves the right to make technical changes. The warranty applies only to the material's flawless properties. Material consumption, quantity, and performance indicators are values obtained from experience and cannot be directly applied to every individual case. The values provided do not exempt the buyer/seller from verifying the suitability of the product for the intended application. This publication is protected by copyright. Changes, republications, and copies, including excerpts, are permitted only with the permission of SIA Knauf.

**The building physics, structural, and technical properties of Knauf systems are fully guaranteed only if Knauf system components or products specifically recommended by Knauf are used.**